



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,399	09/18/2003	Michael S. Leung	P0298US-7	8955
7590	05/13/2005		EXAMINER	LE, THAO X
Jaye G. Heybl KOPPEL, JACOBS, PATRICK & HEYBL Suite 107 555 St. Charles Drive Thousand Oaks, CA 91360			ART UNIT	PAPER NUMBER
			2814	
DATE MAILED: 05/13/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

EF

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/666,399	LEUNG ET AL.
	Examiner Thao X. Le	Art Unit 2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 18 March 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-37 is/are pending in the application.
  - 4a) Of the above claim(s) 1-12 and 20-32 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 13-19 and 33-37 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 18 March 2005 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

1. The drawings were received on 18 Mar. 2005. These drawings are acceptable.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 13-19, 33-34, 36-37 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6531328 to Chen.

Regarding claims 13, 33, Chen discloses a method for coating a plurality of semiconductor device, comprising: providing a mold 8 with a single formation cavity 11, fig. 7, column 4 line 46, for holding a plurality of semiconductor devices (LED) 3, column 5 line 24, fig. 20, mounting a plurality of semiconductor devices 3, fig. 20, within said mold formation cavity 11; injecting or otherwise introducing curable coating material 5, column 5 line 33, into said mold to fill said mold formation cavity 11 and at least partially cover said semiconductor devices 3 with coating material 5; and curing, see claim 6, or

otherwise treating said coating material so that said semiconductor devices 3 are at least partially embedded in said cured coating material 5, fig. 20.

Regarding claims 14-15, 34 Chen discloses the method of claim 13, further comprising removing said cured or treated coating material 5 with said embedded semiconductor devices 3 from said formation cavity, fig. 5, column 10 lines 20-25, further comprising separating said embedded semiconductor devices 3 so that each is at least partially covered by a layer of said cured or treated coating material 5.

Regarding claim 16, 36 Chen discloses the method wherein said formation cavity at least partially defined by parallel upper and lower surfaces, fig. 7, said semiconductor devices 3 arranged on one or both of said upper and lower surfaces, fig. 20.

Regarding claim 17, 37 Chen discloses the method claim wherein said curing otherwise treating said semiconductor material comprises one of the methods from the group comprising heat curing, optical curing or room temperature curing, see claim 6.

Regarding claim 18, Chen discloses a method wherein the semiconductor devices 3 are separated by dicing or scribe and break, column 5 lines 29-34 fig. 11-14.

Regarding claim 19, Chen discloses the method wherein the semiconductor devices are separated such that the layer of cured or otherwise treated coating material 5 conforms to the shape of the semiconductor device 3, fig. 20.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6531328 to Chen in view of US 6252254 to Soules et al.

Regarding claim 35, Chen does not disclose the method wherein the matrix material 5 contains light conversion particles.

However, Soules discloses the method wherein the LED, fig. 2, comprises a matrix material 15 contains light conversion particles, column 6 lines 15-25. At the time the invention was made; it would have been obvious to one of ordinary skill in the art to use the encapsulating material contains light conversion particles teaching of Soules with Chen's encapsulation material 5, because it would have created a specific LED characteristics such as color and color rendering index, as taught by Soules, column 2 line 27-32.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

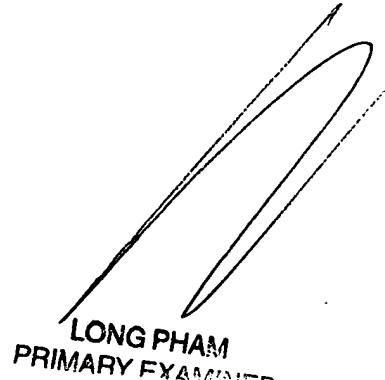
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao X. Le whose telephone number is (571) 272-1708. The examiner can normally be reached on M-F from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael M. Fahmy can be reached on (571) 272 -1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thao X. Le  
03 May 2005



LONG PHAM  
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read "LONG PHAM" followed by "PRIMARY EXAMINER" in a smaller, less distinct script.



1/11

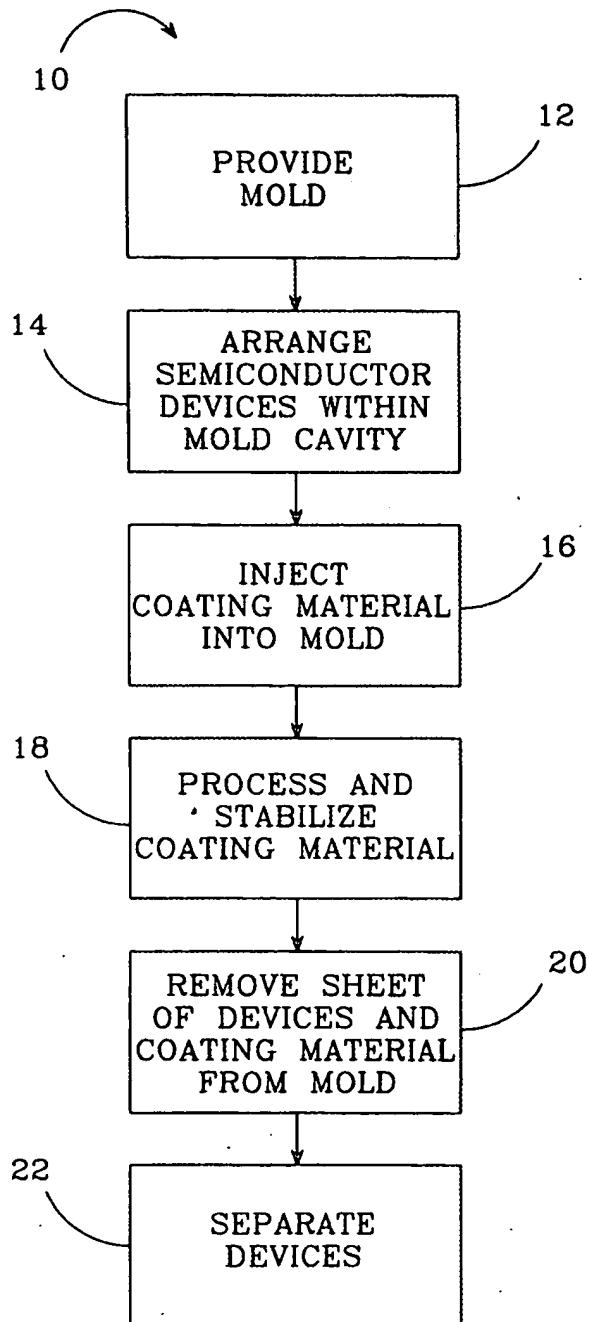


FIG.1

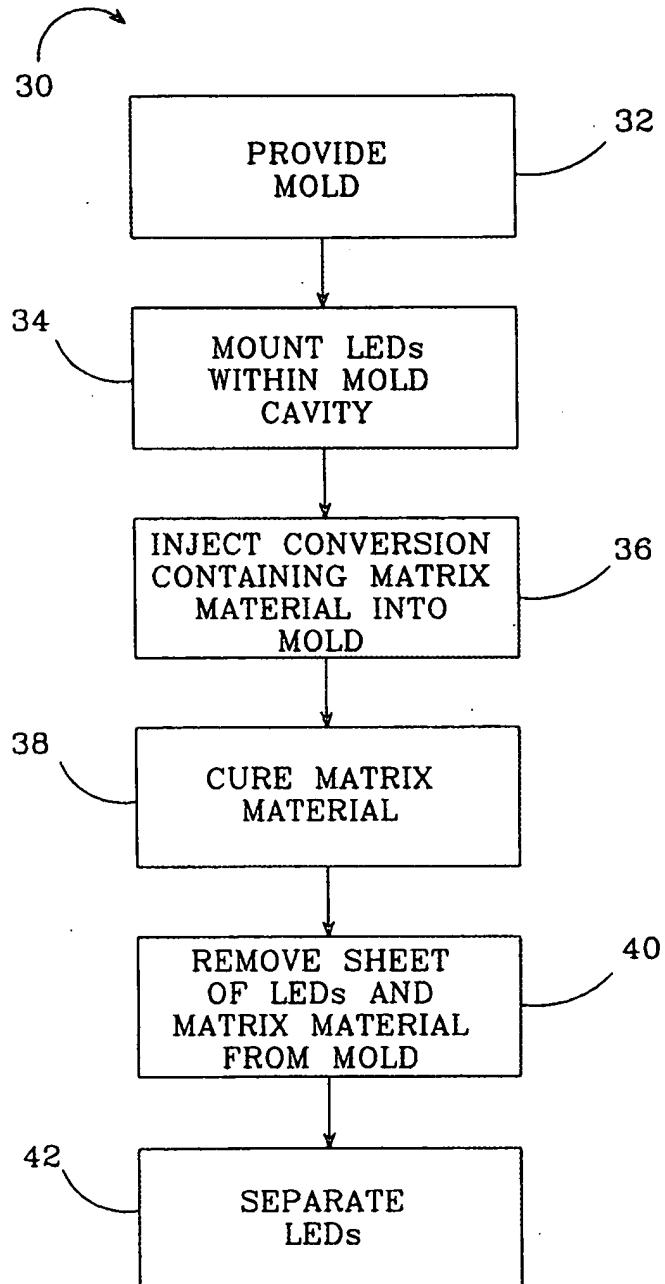


FIG.2